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Mikio Sasaki

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EXAMINER

WOZNIAK, JAMES S

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/608,002	Applicant(s) SASAKI ET AL.	
	Examiner JAMES S. WOZNAK	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 73-92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 73-92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action from 12/14/2007, the applicant has submitted a request for continued examination, filed 6/13/2008, canceling the previously pending claims, while adding new claims 73-92 and arguing to traverse the art rejection based on the limitation regarding selecting a wrong word and outputting an incorrect word to result in a user's win (*Amendment, Pages 11-12*). Applicant's arguments have been fully considered, however the previous rejection is maintained due to the reasons listed below in the response to arguments.

2. In response to the cancellation of the previously pending claims, the examiner has withdrawn the previous drawing objections.

3. In response to the cancellation of the previously pending claims, the examiner has withdrawn the previous claim objections directed to minor informalities.

4. In response to the cancellation of the previously pending claims, the examiner has withdrawn the previous 35 U.S.C. 112, first and second paragraph rejections.

5. In response to the cancellation of claim 58, the examiner has withdrawn the previous 35 U.S.C. 101 rejections.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

In regards to independent **claims 73 and 82-83**, the applicants argue that the prior art of record fails to teach the limitations of selecting a wrong word that leads to termination of the word game and outputting an incorrect word to result in a user's win in the word chain game (*Amendment, Page 11*). In response the examiner notes that there is no such requirement in claim 73, thus, these arguments are moot with respect to this claim. As such, in response, see the below rejection of these claims as being anticipated by Ishibashi (*USPTO translation of JP 06269534 from 2/2007*).

With respect to **Claim 90** and related claims, the applicant argues that Ishibashi fails to teach that a system selects and outputs a word that breaks the rules of a word chain game so that the user will win (*Amendment, Page 11*). In response, the examiner notes that the system in Ishibashi can select a wrong word with respect to the game rules. For example, one of the shiritori game rules states that a word cannot be repeated (*Page 6*). Ishibashi notes that such a word can be selected and output via a speech synthesizer and that a user will win the game if such a condition were to occur (*Pages 5-6*). Thus, these arguments have been fully considered, but are not convincing.

The art rejection of the further dependent claims is traversed for reasons similar to the independent claims. In regards to such arguments, see the preceding remarks.

Claim Objections

7. **Claims 77 and 80** are objected to because of the following informalities:

In claim 77, “words and the phrases” should be changed to –words or the phrases-- because only one or the other can be output.

In claim 80, the phrase “is configured to execute” should be changed to –executes-- because the limitations following this recitation are not positively recited.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claim 82** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 82 is drawn to a “program” *per se* because the body of the claim is directed to instructions themselves (“the instructions comprising the steps of”) not a method performed by a computer when the instructions are executed, therefore no functionality of a practical application is realized. See also MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed

data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. **Claims 86-88** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 86 recites that a dialog is determined to be continued based on a number of

different probability distributions. The specification as filed makes no mention of such “probability distributions” or tone (*tone is disclosed, but not for a dialog continuation determination*) for use in determining if a dialog should continue. Thus, claim 86 contains new matter. Dependent claims 87-88 fail to overcome the preceding new matter issue, and thus, are also rejected by virtue of their dependency.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. **Claims 73, 82-83, and 90** are rejected under 35 U.S.C. 102(b) as being anticipated by Ishibashi (*USPTO translation of JP 06269534 from 2/2007*).

With respect to **Claim 73**, Ishibashi discloses:

A data base that stores a dictionary containing a plurality of words and a plurality of phrases (*speech recognizer word vocabulary, Pages 5-6*);

A recognition unit configured to recognize a user’s input and understands what the user says by referring to the dictionary stored in the data base (*speech recognizer that is capable of recognizing words from a game vocabulary stored in a memory, Pages 5-6*);

A determining unit that determines an occurrence of user error in response to previous output by the computer system in a currently running interactive dialog (*control unit that*

compares the end of a system word to a beginning of a user word to determine that a user has made an input error, Pages 5-6);

A selection unit that selects a phrase to be used to continue the interactive dialog upon a determination that the user's input includes a word or a phrase indicating that the user has made an occurrence of an error in response to the computer system's previous output (*phrase selected by a control unit portion that instructs the user to proceed after an incorrect entry, Pages 5-6);and*

An output unit that outputs the phrase to the user so as to answer to the user's input (*voice synthesizer for providing a voice instructions to a user, Pages 5-6, Paragraphs 0007-0009).*

Claim 82 contains subject matter similar in scope to claim 73, and thus, is rejected under similar rationale. Ishibashi also teaches system process implementation using a program stored in a system processor memory (*Pages 6-7).*

Claim 83 contains subject matter similar in scope to claim 73, and thus, is rejected under similar rationale.

Claim 90 contains subject matter similar in scope to claim 73, and thus, is rejected under similar rationale. Also Ishibashi further teaches the following game rules:

a word chain game which is played between a user and the computer system (*shiritori game, Pages 5-6, Paragraphs 0007-0009*) having a data base that stores a dictionary containing a plurality of words(*speech recognizer word vocabulary, Pages 5-6*), the word chain game being a word-interchanging game in which iterative steps will be repeated until a loser is determined based on a judgment that either the user or the computer system is the .first to breaks any rule of

the word chain game (*rule compliance utilized for determining the game winner, Page 6*), wherein the rules comprise:

that game players alternatively output a word which has an initial letter or letters identical with the final letter or letters of the immediately previous output word (*beginning of the user/system word should be the same as the other participants' word ending, Pages 5-6*),

The output word has not been used since the beginning of the word chain game (*words cannot be repeated, Page 6*), and the output word does not end with any particular predetermined letters (*word ending in "n" terminates the game, Page 6*).

Additionally Ishibashi discloses:

Recognizing a user's input (*speech recognition, Page 5*);

Determining that the user's input is allowed in respect to the rules of the word chain game (*determining that the user input complies with the game rules, Pages 5-6*);

Selecting a wrong word in respect to the rules of the word chain game, the wrong word leading to termination of the word chain game due to breaking of one of the rules by the computer system (*system selected output breaks the game rules such as a repeated output word, Page 6*); and

Outputting an incorrect word to result in a user's win in the word chain game (*system word is output using a synthesizer and speaker, Pages 5-6*).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. **Claims 74, 84-89, and 91-92** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishibashi in view of Miyasato (*USTPO Translation of JP2001-190830 from 7/2008*).

With respect to **Claim 74**, Ishibashi discloses the speech-enabled dialog system as applied to Claim 73. Ishibashi does not specifically suggest a learning unit that learns a new word when it is not found in the dictionary and updates the word in a dictionary as is set forth in claim 74. Miyasato, however, provides a learning means that identifies a spoken input that cannot be found in a memory database and asks/prompts the user to teach the word to the system before registering it in memory (*Paragraphs 0016 and 0052*).

Ishibashi and Miyasato are analogous art because they are from a similar field of endeavor in word chain games. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Ishibashi with the learning means taught by Miyasato to expand game usability by enabling subsequent word games to incorporate new words (*Miyasato, Paragraph 0016*).

Claim 84 contains subject matter similar in scope to claim 74, and thus, is rejected under similar rationale.

With respect to **Claim 85**, Ishibashi further discloses:

Determining that the interactive dialog is to be continued when the computer system finds that the user's input includes a word or a phrase indicating that the user made an occurrence of an error in inputting the user's input into the computer system (*user makes an error and the dialog is allowed to continue, Page 5*).

With respect to **Claim 86**, Miyasato further teaches that a user difficulty level of words ties into determining if a continuing dialog can be found (*Paragraphs 0032-33; and 0057-58*).

With respect to **Claim 87**, Ishibashi further discloses:

Selecting a wrong word to break a consistency of the interactive dialog so as to discontinue the interactive dialog (*the word output by a system has already been used, which terminates the dialog, Page 6*).

Claim 88 contains subject matter similar in scope to claim 74, and thus, is rejected under similar rationale.

With respect to **Claim 89**, Ishibashi further discloses:

Determining that the interactive dialog with the user is to be continued based on a result of an evaluated consistency of the interactive dialog with the user, wherein even if the user's input includes a word or a phrase that indicates that the user made an occurrence of the error in inputting the user's input to the computer system (*it is determined that the dialog should be continued even though the user has made an input error, Page 5*).

Claim 91 contains subject matter similar in scope to claim 74, and thus, is rejected under similar rationale.

With respect to **Claim 92**, Ishibashi further discloses:

the data base of the computer system further stores a plurality of series words which are chained in accordance with the rules of a word chain game (*vocabulary words that are chained together according to the shiritori game rules, Pages 5-6, Paragraphs 0006-0007*), and

The selection unit selects the word to output to the user by referring to the plurality of series of words stored in the data base in order not to terminate the word chain, game due to a difficulty for searching a next word (*words used by a voice synthesizer to continue a game dialog that follow the rules of the shiritori game, Pages 5-6, Paragraphs 0007-0008*).

16. **Claims 75-81** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishibashi in view of Miyasato and further in view of Kurita (*USPTO Translation of JP2000-61137 from 7/2008*).

With respect to **Claim 75**, Ishibashi in view of Miyasato discloses the speech-enabled dialog system utilizing a learning unit, as applied to Claim 74. Ishibashi in view of Miyasato does not specifically suggest a scenario interpreter, however, Kurita discloses:

A scenario interpreter that controls a flow of the interactive dialog based on a history of the user's inputs such that topics of the interactive dialog are directed to preferences of the user (word chain game interpreter is based upon past user inputs into a memory to utilize preferred genres in the game, Paragraph 0033, 0035)

Wherein the selection unit selects words to output to the user, based on the current topics of the interactive dialog (*words directed to the current genre, Paragraphs 0033; and 0035*), to ensure that the interactive dialog is to be continued even when the Computer system fails to recognize the user's input (*system cannot recognize speech and still continues genre dialog,*

Paragraph 0018) and finds that the user's input indicates that the user made the occurrence of the error in response to the computer system's previous output to the user (*taught by Ishibashi as applied to Claim 73*).

Ishibashi, Miyasato, and Kurita are analogous art because they are from a similar field of endeavor in word chain games. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Ishibashi with the genre scenario means taught by Kurita in order to allow a user to better enjoy a Japanese word-chain game (*Kurita, Paragraph 0036*).

With respect to **Claim 76**, Kurita further discloses:

An anticipating unit that anticipates a future response from the user if the word selected by the computer system be received and responded by the user (*system processing means that anticipates a user response within a certain genre, Paragraph 0035*).

With respect to **Claim 77**, Miyasato further discloses:

A dialog management unit that stores the user's attributes, wherein the selection unit selects the words and the phrase for answering to the user's input to those which have a degree of difficulty within a range of degrees of difficulty set up in accordance with the user's attributes (*difficulty levels corresponding to dictionary data that is based upon different user profiles, Paragraphs 0026-0028; and Figure 2*).

With respect to **Claim 78**, Miyasato further discloses:

A timer that counts an elapsed time after the output unit outputs the selected, word selected by the selection unit to the user (*timer, Paragraph 0056; and Fig. 1, Element 36*), wherein the determining unit evaluates the degree of a user's satisfaction with a currently

proceeding dialog between the user and the computer system taking into account the elapsed time counted by the timer (*timer setting is adjusted based on user difficulties, Paragraph 0013*).

With respect to **Claim 79**, Ishibashi further discloses:

A counter that counts a number of occurrences of an error by the computer to the word outputted by the user (*means for monitoring a breaking of rules by a user or computer system, Paragraph 0008*),

Wherein, the selecting unit selects a wrong word that breaks the rule of the word chain, game such that the user is a winner of a word chain game, if the number of occurrences of an error by the computer becomes greater than a predetermined number (*repeated output word is issued from a speaker when a system selects the one repeated word so that the user wins the game, Paragraph 0008*).

With respect to **Claim 80**, Ishibashi further discloses:

The computer system is configured to execute a word chain game which is played between a user and the computer system (*shiritori game, Pages 5-6, Paragraphs 0007-0009*) having a data base that stores a dictionary containing a plurality of words (*speech recognizer word vocabulary, Pages 5-6*), the word chain game being a word-interchanging game in which iterative steps will be repeated until a loser is determined based on a judgment that either the user or the computer system is the first to breaks any rule of the word chain game (*rule compliance utilized for determining the game winner, Page 6*), wherein the rules comprise:

that game players alternatively output a word which has an initial letter or letters identical with the final letter or letters of the immediately previous output word (*beginning of the user/system word should be the same as the other participants' word ending, Pages 5-6*),

The output word has not been used since the beginning of the word chain game (*words cannot be repeated, Page 6*), and the output word does not end with any particular predetermined letters (*word ending in "n" terminates the game, Page 6*).

With respect to **Claim 81**, Ishibashi further discloses:

the data base of the computer system further stores a plurality of series words which are chained in accordance with the rules of a word chain game (*vocabulary words that are chained together according to the shiritori game rules, Pages 5-6, Paragraphs 0006-0007*), and

The selection unit selects the word to output to the user by referring to the plurality of series of words stored in the data base in order not to terminate the word chain, game due to a difficulty for searching a next word (*words used by a voice synthesizer to continue a game dialog that follow the rules of the shiritori game, Pages 5-6, Paragraphs 0007-0008*).

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/James S. Wozniak/
Patent Examiner, Art Unit 2626